

# Recombinant human PIGF-1/PGF protein

Catalog Number: ATGP4140

## PRODUCT INFORMATION

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### Expression system

HEK293

### Domain

19-149 aa

### UniProt No.

P49763-2

### NCBI Accession No.

NP\_001193941.1

### Alternative Names

Placenta growth factor, PIGF, PGF, PGFL, PLGF, placenta growth factor isoform 2

## PRODUCT SPECIFICATION

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### Molecular Weight

15.5kDa (137aa)

### Concentration

0.5mg/ml (determined by Bradford assay)

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

### Purity

> 90% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Biological Activity

Measured by its binding ability in a functional ELISA with Human VEGFR1/Flt-1 (CAT# ATGP4101).

### Tag

His-Tag

### Application

SDS-PAGE, Bioactivity

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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### Description

Placenta growth factor (PIGF/PGF) is a member of the PDGF/VEGF-sub-family - a key molecule in angiogenesis

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and vasculogenesis, in particular during embryogenesis. There are three isoforms of this protein: PIGF-1, PIGF-2, PIGF-3. PIGF-2 is only found in early placenta up until the 8th week of development, while PIGF-1 is specifically found in the colon as well as mammary carcinomas. PIGF induces monocyte activation, migration, and production of inflammatory cytokines and VEGF. Also, PIGF is ultimately associated with angiogenesis. These activities facilitate wound, bone fracture, and cardiac repair, but also contribute to inflammation in active sickle cell disease and atherosclerosis. Recombinant human PIGF-1/PGF, fused to His-tag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques.

## Amino acid Sequence

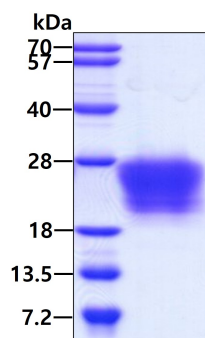
LPVPPQWA LSAGNGSSEV EVVPFQEVWG RSYCRALERL VDVVSEYPSE VEHMFSPSCV SLLRCTGCCG DENLHCVPVE TANVTMQLLK IRSGDRPSYV ELTFSQHVRC ECRPLREKMK PERCGDAVPR R<HHHHHH>

## General References

- Hauser, S. and H.A. Weich (1993) Growth Factors. 9:259-268.
- Maglione, D., et al, (1993) Oncogene. 8:925-931.
- Roncal, C., et al, (2010) Cardiovasc. Res. 86:29-36.

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain

### Biological Activity

Human PGF/PLGF-1 is coated at 2 ug/ml (100 ul/well) can bind Human VEGFR1/Flt-1 (CAT# ATGP4101) in a Functional ELISA assay.

